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(54) **Title:** METHOD FOR PERFORMING DELTA VOLUME DECOMPOSITION AND PROCESS PLANNING IN A TURNING STEP-NC SYSTEM

(57) **Abstract:** A profile of a finished part is recognized based on an inputted CAD data. A delta volume for the finished part is decomposed based on information on cutting tools and the profile. Thereafter, a dependency graph representing precedence relation between the decomposed delta volumes is generated. And then, a process sequence graph representing process plans is generated based on the dependency graph. The delta volume decomposition is performed based on information on cutting tools and a machine configuration as well as part geometry, such that the decomposed delta volumes are suitable to be cut away from a raw stock by the cutting tools.